

CAPE OF GOOD HOPE.

Department of Agriculture.

REPORTS

OF THE

INSPECTOR OF MINES, KIMBERLEY,

INSPECTOR OF CLAIMS, BARKLY WEST,

INSPECTOR OF MINES, MILLWOOD,

MANAGER VOORUITZIGT ESTATE, KIMBERLEY,

For the Year 1893.

Presented to both Houses of Parliament by command of His Excellency the Governor.
1894.

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REPORTS

INSPECTOR OF MINES KIMBERLEY

INSPECTOR OF MINES BARKLY WEST

INSPECTOR OF MINES MILLWOOD

MANAGER VORSTER'S ESTATE KIMBERLEY

For the Year 1883.

CAPE OF GOOD HOPE.

**Reports of the Inspector of Mines, Kimberley,
Inspector of Claims, Barkly West, Inspector
of Mines, Millwood, Manager Vooruitzicht
Estate, Kimberley.**

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**REPORT OF THE INSPECTOR OF DIAMOND MINES,
KIMBERLEY, FOR THE YEAR 1893.**

I have the honour to present my Report for the year 1893.

KIMBERLEY MINE.

The principal working level in Kimberley Mine during 1893 was the 1,000 feet. Two prospect shafts were sunk in the blue ground, from the 1,000 feet to the 1,200 feet, and development commenced at the levels below the 1,000 feet, which are 40 feet apart, instead of 30 feet, as in the upper levels. On the 7th January, 1893, the 1,200 feet level struck the blue ground at a distance of 1,191 feet from the rock shaft, and since then it has been communicated with the levels driven in the blue ground from the prospect shafts before mentioned.

Rock Shaft.—This shaft has only been sunk a few feet during the year. It is now the principal drawing shaft in the mine, and all the blue ground for the year was hoisted through it, from the 1,000 feet level, with the exception of 26,669 loads hoisted through the standard shaft, from the 845, during August and September. A great improvement has been effected in the winding compartments of the rock shaft, by replacing the old wood guides by steel guides, 6 inch x 4 inch x $\frac{1}{2}$ inch thick. These guides are in 28 feet lengths, weighing about 900 lbs., so that over 60 tons were used. The change was effected from the 13th to the 23rd August, and no trouble has been since experienced.

Standard Shaft.—This shaft is still available for drawing from the 845 feet. It is also an additional means of escape, and greatly assists the ventilation of the mine.

Depth.—The greatest depth reached, in diamondiferous ground, at the end of the year was 1,200 feet.

Hard Rock.—The enclosing rock, at the 1,200 feet level, is still quartzite. It will be seen from the sections of Kimberley Mine, at the end of this report, that the metamorphic slate, met with in the rock shaft at a

depth of 1,141 feet, only continued a short distance from the shaft in the 1,200 feet level.

Water.—The average quantity of water pumped for the year 1893 was 9,437 gallons per hour. The highest average per hour was 12,966 gallons, during the week ended 21st January, and the lowest 7,684 gallons, for the week ended 15th July.

Area of the Mine.—In 1890 the area of the surface opening of Kimberley Mine was 31 acres. In 1893 it had increased to 33 acres. At the level of the hard rock the area of the mine is 4.55 acres, of which 2.69 are worked.

Reef Movements.—On 21st July one of the largest reef movements for some years commenced from the north-west corner of the open mine. It carried the head gear of Harvey's shaft into the open mine, but the closing of the doors, put in for that purpose, a few feet below the top of the hard rock, prevented the shaft being filled with reef, as it was in March, 1890. The reef movements ceased on 24th July, but again commenced on 28th July, and Harvey's shaft was not reopened till the 18th August. A very substantial concrete pillar, about 20 feet high, was then built, on the top of the hard rock, around Harvey's shaft. On the 25th September another heavy fall of reef took place, from the same corner of the mine, and but for this pillar the head gear would probably have been again carried away.

A new head gear has been erected on Harvey's shaft, since the pillar has been completed, and it is not likely to be affected by future reef movements. Harvey's shaft is only about 30 feet north from the face of the hard rock in the open mine, and is very useful in many ways, as well as being one of the principal upcast shafts of the mine.

Floors.—Great improvements and additions were made to the floors, and machinery thereon, during 1893. Eight new 14 feet pans were added to the four previously at work at No. 2 washing gear. A new compound condensing engine has been erected for drawing the new mechanical haulage, and a new triple expansion condensing engine for driving No. 2 washing gear. Several miles of new rails have been laid down, as well as some miles of pipes for watering the blue ground. Owing to the extension of the new mechanical haulage only three locomotive engines are at present required on the floors, instead of seven as formerly, and after a short time only one will be necessary.

Mechanical Haulage.—A new mechanical haulage from the rock shaft to the floors was started on the 12th June, and the following particulars respecting it, and the hoisting at the rock shaft, are extracted from the General Manager's last Annual Report:—

"A chain haulage has been in use at this mine since 1887, but it delivered the ground to the top end only of the floors. Owing to our having increased the size of the depositing floors, in order to deal with a larger output, it became necessary to take the ground a mile further. To accomplish this a new route was selected, and a wire rope haulage put in.

"While a chain haulage works very well indeed for short distances and for steep inclines, it has been found that the wire rope system is much better and more convenient for long distances. To give an idea of the amount of material which we have transported over our haulage, I may state that 6,024 trucks, each holding one ton of blue ground, have been hauled during a day of twenty-four hours. The actual time during which the haulage ran was 20 hours 38 minutes."

"We have hoisted 3,312 loads, equal to 2,650 tons, in an eight hours' shift. The actual working time was seven hours fifty-three minutes." This was from the 1,000 feet level at the rock shaft.

Cattle.—The average daily number of horses and mules at work was 171.

Fuel.—The following was the average daily consumption of fuel, in tons of 2,000 lbs.:—Coal, mine $27\frac{1}{2}$, and floors $4\frac{1}{2}$ tons; wood, mine 2, and floors 15 tons. Average price per ton: English coal, 165/-; Colonial coal, 50/6; wood, 35/-.

Output.—The output of blue ground for the year was 1,627,791 loads, of 16 cubic feet.

Wages.—Wages ranged from £3 12/- to £6 per week to white men, and 21/- per week to Kafirs in compounds.

Labour.—The average number of persons daily employed is returned by the company as follows:—Above ground, white, 242; coloured, 1,174. Below ground, white, 197; coloured, 1,282. Total, 2,895.

Accidents.—There were 40 accidents reported from Kimberley Mine during 1893, from which 49 persons suffered; of these 15 were killed on the spot or fatally injured.

The following table gives the nature of these accidents:—

Accidents in Kimberley Mine during 1893.

Cause of Accident.	Number of Separate Accidents.	Number of Persons Killed.		Number of Persons Injured.		
		White.	Coloured.	White.	Coloured.	
UNDERGROUND.						
Falls of ground	...	9	1	2	3	3
Mud-rushes	...	3	...	3	...	3
Falling down shafts	...	1	...	1	...	...
Machinery in shafts	...	2	...	...	3	...
Falling into passes	...	3	...	1	1	1
Blasting	...	6	1	4	2	4
Miscellaneous	...	1	...	...	...	1
		—	—	—	—	—
		25	2	11	9	12
ON SURFACE.						
On tramways or by trucks	...	9	...	1	3	5
Sundry at washing machines	...	2	...	1	1	...
Blasting	...	1	...	...	1	...
Miscellaneous	...	3	...	...	2	1
		—	—	—	—	—
		15	...	2	7	6
		—	—	—	—	—
Total	...	40	2	13	16	18

DE BEERS MINE.

Rock Shaft.—At the end of 1893 the rock shaft had reached a depth of 1,221 feet, and was still in quartzite. At the 1,200 feet level a commodious station has been made, plunger lift fixed, and everything is in readiness for driving towards the mine. All blue ground is now hoisted through this shaft from the 1,000 feet level. A mechanical haulage has been put in this level, which works admirably.

Great improvements have been effected in the winding compartments of the rock shaft, steel guides, similar to those described at Kimberley, having

been substituted for the old wood guides; and in addition a great deal of new timbering has been done, making the shaft far better than it ever was.

No. 2 Shaft.—No. 2 incline shaft was used during the greater portion of the year for drawing the ground from the development work between the 800 and 1000 feet levels, of which a good deal was done, the levels being 40 feet apart. It will probably be unnecessary to draw any more blue ground through this shaft; the ladders have been removed, and the double trolley-way is very useful for sending timber and materials into the mine. It is the principal upcast shaft of the mine.

No. 1 Shaft.—This shaft was completed to a depth of 848 feet in June. It is connected with the mine by the 800 feet level, driven 426 feet in the hard rock, and 189 feet in the blue ground, when it connects with the main level from the rock shaft. It is also connected with the compound by means of a level, driven close to the surface, for use of the natives. White men and natives are now regularly sent in and out of the mine through this shaft. It has a double cage-way, which is better adapted for this purpose than any other in the mines, and is more safe, because no winding is carried on whilst men are ~~are~~ being sent through the shaft. It has also a double ladder-way for use when the cages are not available.

Depth.—The deepest working level in blue ground at the end of the year was 1000 feet.

Hard Rock.—The enclosing rock, at a depth of 1000 feet is quartzite.

Water.—The average quantity of water pumped during 1893 was 5,439 gallons per hour. The highest average per hour was 6,126 gallons during the week ended 29th July, and the lowest 3,808 gallons, for the week ended 2nd September.

Area of Mine.—In 1890 the area of the surface opening at De Beers mine was 18.68 acres. In 1893 it had increased to 21.5 acres. At the level of the hard rock the area of the mine is 10.12 acres, of which 5.97 are worked.

Floors.—A large crushing and concentrating plant is being erected near the pulsator. It will be used for treating the hard blue, of which a large quantity has accumulated on the floors. The capacity of the plant will be about 1,000 tons in 10 hours.

Cattle.—The average daily number of horses and mules employed was 210.

Fuel.—The average daily consumption of fuel, in tons of 2,000 lbs., was:—Coal, mine $33\frac{1}{2}$ and floors $2\frac{1}{2}$ tons; wood, mine $7\frac{1}{2}$ and floors $25\frac{1}{2}$ tons. Average price per ton, English coal 165s., Colonial coal 50s. 3d., wood 35s.

Output.—The output of blue ground for the year was 1,605,640 loads, of 16 cubic feet.

Wages.—Same as at Kimberley mine.

Labour.—The average number of persons daily employed is returned as follows:—Above ground, white, 397, coloured (including 800 convicts), 1,861; below ground, white, 228, coloured, 1,981; total 4,467.

Workshops.—The average number daily employed at the new workshops, at work required for both Kimberley and De Beers Mines, and consequently not included in the previous figures, is returned as white, 417; coloured, 273; total, 690.

Wages.—Wages of those employed at the workshops averaged for engine drivers and mechanics, £5 10s. per week; labourers, white, from £2 8s. to £4; and coloured, 24s.

Accidents.—There were 42 accidents reported from De Beers Mine in 1893, from which 60 persons suffered; of these 22 were killed on the spot or fatally injured.

The following table gives particulars of these accidents :—

Accidents in De Beers Mine in 1893.

Cause of Accident.	Number of Separate Accidents.	Number of Persons Killed.		Number of Persons Injured.	
		White.	Coloured.	White.	Coloured.
UNDERGROUND.					
Falls of ground ...	21	...	7	4	10
Falls from ladders ...	4	...	8	...	10
Falling down shafts ...	2	1	...	1	...
Whilst ascending shafts by machinery ...	1	...	1	...	...
Machinery in shafts ...	1	1	...	...	...
Ground falling down shaft ...	1	...	1	...	4
Falling into passes ...	2	...	2	...	...
On tramways or by trucks ...	2	...	...	1	1
Blasting ...	2	...	...	2	...
Miscellaneous ...	2	...	...	...	2
	—	—	—	—	—
	38	2	19	8	27
ON SURFACE.					
On tramways or by trucks ...	1	1	...	...	...
Miscellaneous ...	3	...	...	2	1
	—	—	—	—	—
	4	1	...	2	1
	—	—	—	—	—
Total ...	42	3	19	10	28

ST. AUGUSTINE'S MINE.

At the end of 1892 the shaft had reached a depth of 809 feet, and driving was commenced north, south, east and west of shaft, at the 800 level. Since then 1,083 feet have been driven in various directions, the levels north, south and east being close to the boundary. In driving north a pipe of hard blue was met with, at a distance of about 50 feet from the shaft. This is apparently a continuation of the blue ground which left the shaft, when the quartzite was intersected, at a depth of 751 feet, and it appears to be dipping north at an angle of about 45°. Operations at this level were discontinued on 6th September, and the pitwork was sent to surface. Subsequently 17,100 loads (20 feet) of tailings were washed. Work was suspended on 18th November.

Labour.—Above ground: 8 white, 12 coloured; below ground, 9 white, 21 coloured; total 50.

Accidents.—Nil.

OTTO'S KOPJE MINE.

Up to 13th May (when operations were suspended, pending the erection of new machinery) prospecting was carried on towards the north-east part of the mine, in the yellow ground, in which the greatest depth reached was 34 feet. A new crushing and pulsating plant is now being made in England, which is expected to be at work about the middle of the current year. It will receive the ground direct from the mine, and is expected to treat 1,000 loads in ten hours.

Labour.—From 1st January to 13th May: Surface and open works, 5 white, 60 coloured; total 65.

Accidents.—Nil.

DU TOIT'S PAN MINE.

The New Gordon Company commenced on 16th September hauling water, with skips of 312 gallons capacity, through No. 1 and No. 2 shafts, and at the end of the year the General Manager calculated that about 54,000,000 gallons had been taken out, and that the water in the open mine had been thereby lowered about 17 feet. As soon as it is sufficiently low it is intended to resume operations in the underground levels. During the year about 32,000 loads of blue ground were broken from above the water level. This ground was treated direct from the mine, by the new crushing and pulsating plant, which answered very well. Work was carried on in the "Central Dorstfontein Block" during January and February.

The "Alice Diamond Syndicate, Limited," commenced operations on the 18th September, at a spot 400 yards due north of Du Toit's Pan Mine Surface Opening, and opposite Claim No. 693. About 8,000 loads of yellow ground were broken and washed, the greatest depth worked being about 40 feet below the red soil. Operations were suspended on 23rd December.

In November work was commenced by the "Lippiatt & Conyngham syndicate, in some claims to the south of those formerly worked by the Griqualand West Mining Company, on the western side of the mine. The new syndicate's operations are on the opposite side of the street, under which the yellow ground appears to be extending.

Acreage of Open Works.—The area of the surface opening in 1890 was 35.05 acres. At the end of 1893 it had increased to 44.25 acres.

Claims and Assessment.—According to the assessment framed in November, 1892, for the year 1892-93, the number of claims was 1,869, and the assessment £1,339,190.

Wages.—Wages to white men ranged from £3 10s. to £6 per week; and to Kafirs 20s. per week, with lodging.

Labour.—The daily average number of persons employed in and about the mine, and on the floors, according to returns supplied, was: white 45, coloured 82; total 127.

Accidents.—There were three accidents reported from Du Toit's Pan in 1893, by which 2 natives were killed, and 1 native was injured. These accidents were caused by falls of ground and débris.

BULTFONTEIN MINE.

In 1893 the North Eastern Bulfontein, Limited, worked about 260 claims in the open; the deepest working level being about 240 feet below the surface. On 6th October operations were much curtailed, and on 24th November they were suspended. In May Hunt and Birkley commenced working some claims on the south-western side of the mine.

Reef Movements.—There was a heavy fall of reef on 18th October, which continued to subside for some time afterwards.

Acreage of Open Works.—In 1890 the area of the surface opening of Bulfontein Mine was 27 acres. At the end of 1893 it had increased to 36 acres.

Claims and Assessment.—According to the assessment framed in November, 1892, for the year 1892-93, the number of claims was 1,659, and the assessment £725,200.

Wages.—To white men wages ranged from £3 10s. to £5 per week; and to Kafirs 17s. per week and lodging.

Labour.—The average number of persons employed in and about the mine, and on the floors, from returns supplied, was:—Surface and open works: white 217, coloured 1,074; total 1,291.

Accidents.—There were 30 accidents reported from Bulfontein during 1893, from which 31 persons suffered; of these 9 were killed on the spot or fatally injured. The following table gives the nature of these accidents:—

Accidents in Bultfontein Mine in 1893.

Cause of Accident.	Number of Separate Accidents.	Number of Persons Killed.		Number of Persons Injured.	
		White.	Coloured.	White.	Coloured.
SURFACE AND OPEN WORKS.					
Falls of ground and debris ...	12	...	2	...	10
On tramways or by trucks ...	11	...	3	...	8
Falling down open works ...	2	...	...	...	2
Blasting ...	3	...	4	...	...
Miscellaneous ...	2	...	...	...	2
	—	—	—	—	—
Total ...	30	...	9	...	22

SUMMARY.

Explosives.—Returns have been kindly furnished of the quantities of Explosives used in 1893, as follows:—Dynamite 323 tons, Gelatine and Gelignite $13\frac{1}{4}$ tons, Roburite $16\frac{3}{4}$ tons; total, 353 tons.

Labour.—The average number of persons daily employed in 1893, according to returns furnished, was: On surface and open works, 1,329 white, 4,498 coloured; underground, 434 white, 3,292 coloured; total, 1,763 white and 7,790 coloured = 9,553.

Nationalities.—As far as can be ascertained the percentage of nationalities of white employes is as follows:—At De Beers workshops, where a considerable number of mechanics is employed, it is, English 41·5, Scotch 23·3, Irish 2·4, Colonial 27·1, European 4·2, other 1·5 = 100. The percentage of those employed elsewhere is: English 52·2, Scotch 6·2, Irish 4·8, Colonial 33·1, European 1·8, other 1·9 = 100.

Accidents.—There were 115 accidents reported during the year, from which 143 persons suffered; of these 48 were killed on the spot or fatally injured. Accidents outside the mining areas are not reported. The following table gives particulars of all accidents reported during 1893:—

Cause of Accident.	Number of Separate Accidents.	Number of Persons Killed.		Number of Persons Injured.	
		White.	Coloured.	White.	Coloured.
UNDERGROUND.					
Falls of ground	30	1	9	7	13
Mud-rushes	3	...	3	...	3
Falls from ladders	4	...	8	...	10
Falling down shafts	3	1	1	1	...
Whilst ascending shaft by machinery	1	...	1	...	...
Machinery in shafts... ..	3	1	...	3	...
Ground falling down shaft	1	...	1	...	4
Falling down passes	5	...	3	1	1
On tramways or by trucks	2	...	...	1	1
Blasting	8	1	4	4	4
Miscellaneous	3	...	...	...	3
	63	4	30	17	39
SURFACE AND OPEN WORKS.					
Falls of ground and débris	15	...	4	...	11
On tramways or by trucks	21	1	4	3	13
Falling down open works	2	...	...	...	2
Sundry at washing machines	2	...	1	1	...
Blasting	4	...	4	1	...
Miscellaneous	8	4	4
	52	1	13	9	30
Total	115	5	43	26	69

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Falls of ground.—As in former years the greatest number of accidents was from falls of ground, by which one European and thirteen natives lost their lives. Of this number four natives were employed in the open works, or on surface, and the others underground. The blue ground is very treacherous, being full of joints and “soapy heads” and the greatest care is necessary to guard, as far as possible, against these frequent falls. I am glad to say that the number of deaths from this cause during 1893 has been less than one-half of those in the previous year.

Mud-rushes.—There were three accidents from mud-rushes at Kimberley Mine, by which three natives were killed, and three others injured. The first was on the 25th January, in one of the chambers on the west side of the 885, where some natives were filling trucks, when a rush of mud took place from an adjacent chamber, stopping in four natives. Two were got out the same evening, and one next morning, very little the worse for their confinement, and the body of the deceased was recovered the following day. The miner in charge stated at the inquest that he examined the chamber about five minutes before the mud rush, when it appeared perfectly safe, there being no signs of mud or water. The mud rushed out with great force, filling the chambers and levels in the vicinity.

The next accident was on the 18th March, at the 755 level, when one native lost his life. In this case the mud appears to have come out at a comparatively slow rate, as the other natives who were filling with deceased said they had ample time to get away, and they called to deceased to follow them, which they thought he would have done. The ladder-way was within a short distance.

The other accident occurred on the 29th October, at the 925 level, where a native was drilling a hole to make room for a set of timber. The miner under whom he was working, was standing about fifty feet away, in the mouth of the level, and on hearing boys coming from another part of the mine, shouting “mud, mud,” he called out to deceased to run, but he was unfortunately caught by the mud and water. This rush was caused by a hole being fired in a chamber some distance away, where the crushed ground was so difficult to fill into the trucks that the contractor blasted a charge of dynamite in it, which quite unexpectedly caused a large quantity of mud and water to rush out.

Mud-rushes often occur without any warning, and it is absolutely necessary that as many means of escape as possible should be provided. Electric lights should also be brought as near as practicable to the working places, because candles are often extinguished immediately by the rush of wind and foul air that generally takes place.

In my report for 1891 I fully described these mud-rushes, and said that I thought they were mainly caused by the enormous quantity of water which had to percolate from the open mine down through the mass of loose reef and crushed blue ground to the working places.

With a view to lessen as much as possible the outside drainage into the open mine, a level has been driven from the French shaft, at the top of the hard rock, towards the open mine, and the water thus drained has been regularly hoisted through the French shaft. A level was also driven from Harvey's shaft, on the opposite side of the mine, which has also taken up a quantity of water. Another level has just been started from the Standard shaft, in the hard rock, at a depth of 318 feet, which is to be continued near the top of the hard rock, around the ~~east~~ ^{east} side of and close to the open mine. This level will probably take up a considerable quantity of water, and it is intended to communicate it with the level from the French shaft, and then continue it further around the mine. The water will then be taken down the Standard shaft, rendering unnecessary the hoisting through the French shaft.

Falls from ladders.—Next to falls of ground the greatest number of deaths

was caused by falls from ladders. There were four of these accidents in De Beers mine, by which eight natives lost their lives and ten others were injured. The two most serious of these accidents happened in the No. 2 Incline shaft. The first was about 4:30 a.m., on the 30th January, as the natives were descending to their work. When about 500 feet down, one of them appears to have fallen down the ladder, carrying away those next below him. Altogether 19 were thus carried away; two were killed and four injured, but the others were little hurt. The next accident was on the 3rd May, and was also due to a native falling away; by this accident no less than five natives were killed, and five others injured. On each occasion I went down the ladder-way shortly after the accident, and found it in good order, and well lit with the electric light. It was a double ladder-way, inclined 56° from the horizontal, and at the time of these accidents was used for going down the mine by nearly all the natives, so that at the change of shifts there would be a large number in the ladder-way at the same time, and racing frequently took place. The other fatal accident was in De Beers No. 1 shaft on 3rd July. From the evidence at the inquest a native appears to have slipped when descending a ladder, about 500 feet down, falling to the next platform. He died before he could be removed. He was a new boy and had not been down the mine before. The ladder-way was a new one, having only been used a few days.

Other Accidents in Shafts.—During the year there were five fatal accidents in shafts (in addition to those caused by falls from ladders) by which two white men and three natives lost their lives. Two of these accidents were from falling down shafts. The first was on 23rd August, when two natives were about to clear the spill chute (into which the blue ground overflows from the skips) at the station below the 1,000 feet level at Kimberley rock shaft. One was on each side and they lifted the door by raising the projecting horns with their shoulders. A quantity of water rushed out with the ground, through the front of the chute, before which the miner in charge was standing, and who stepped on one side to avoid it. Deceased must have been frightened and got over the fence, which was close to him, and fell down the narrow space between it and the rock, to the 1,200 feet level. He would have been perfectly safe if he had remained where he was; the water and ground did not go towards him and I do not think he could have fallen over the fence without climbing over it.

On 7th December a white man was killed by falling down De Beers rock shaft. He was sending down a piece of main rod, 30 ~~feet~~ by 9 inch by 9 inch, and was in charge of the shift. It had been sent to the 1,000 feet level, fastened to the bottom of the man cage. It was then necessary to loose the rod from the cage, and send it to the 1,200 feet level by a little engine at the 1,000 feet station. The rod was lowered so that the bottom end could rest on a platform, about 40 feet below the station. One of the other miners was standing on this platform to see that the end of the rod was securely placed so that it could not slip, and he stated at the inquest that deceased, who was about 25 feet above, then proceeded to unfasten the chain from the upper end of the rod, which was resting against the side of the shaft, that the chain got jammed and he pulled it towards him with a jerk, which caused the top end of the rod to slide against him, knocking him off the stage, when he fell to the platform 25 feet below. He was so badly injured that he died in the hospital on the following night.

There were two fatal accidents caused by machinery in shafts. The first was on 8th February by which a white man was killed in De Beers rock shaft. He was employed in the shaft at the 1,000 feet level, and went up the ladder way about 15 feet to lift a door for the bucket to pass. The cage was regularly running in the other compartment, and he appears to have gone the wrong side of the shaft and inadvertently put out his head in the cage compartment, just as the cage was descending.

The other accident was on 31st August in De Beers No. 2 incline shaft. The natives were being sent down in the double skip or trolley to the 800 feet level, those from the upper trolley had got out, and as it was being taken up, to enable those on the lower deck to get out, the deceased put out his head and was caught against the framework.

The accident from "ground falling down shaft" happened at De Beers rock shaft on 1st March, by which one native was killed and four others were injured. The shaft was being sunk, and was about 200 feet below the 1,000 feet level, to which the ground was hoisted in buckets by a small engine fixed at the 1,000 feet station. Whilst the bucket was being drawn up some pieces of ground fell down the shaft, with the result stated. From the evidence at the inquest it was difficult to decide whether the ground fell from the side of the shaft, or from the bucket. The shaft was carefully examined and no signs could be detected of any ground having fallen off. I am inclined to think that it fell from the bucket, which was probably filled above the brim.

Falling down Passes.—There were three fatal accidents from falling down passes, by which three natives lost their lives. The first was at Kimberley Mine on 2nd March, when a native engaged in tramping at the 845 feet level was missed from his work and was subsequently found in a pass, having fallen to the 925 feet level. This pass had not been used for some time; it was securely fenced off and no evidence could be obtained as to how he got there—probably he leaned over the fence, or got over it for some purpose.

The next accident was in De Beers Mine on the 7th August. About noon on that day the body of a native came out with the blue ground, at No. 3 pass, at the 800 feet level. A ticket dated 7th August, No. 5,188, day shift, was found on the body. This ticket was handed out in the compound for the first shift on that day. No evidence could be obtained as to how he got in the pass, or at which level. It is a vertical pass, from the 625 feet to the 800 feet, and is used for tipping at the intermediate levels. On the day of the accident it was full all the shift, from the 710 feet to the 800 feet, so he must have got in at one of the three levels above. Each entrance to this pass is properly protected by a gate hung for that purpose, and when ground is being tipped a person is stationed there to open and shut the gate.

The next accident was in the same pass on the 29th December. In this case the deceased had been stationed at the 665 feet, to open and shut the gate as described in the previous accident. He was an experienced boy, and had been employed underground for a considerable time.

From the evidence obtained it appears that when one of the trucks was tipped, some ground fell on the flat-sheet, close to the pass. Deceased was holding the gate with one hand, and clearing the ground with the other, when he apparently slipped into the pass. The gate was in good order.

Accident at Washing Machine.—This was at No. 2 machine on Kimberley floors on 19th September, by which a native lost his life. He had been engaged with another native pushing trucks of ground into the cage, which lifted them about 25 feet. According to the evidence at the inquest, the truck was pushed on to the cage, when deceased himself gave the signal to the engineman to hoist. Just as the cage started he appears to have attempted to push the truck a little further in, when he was lifted with it and caught against the frame-work of the hoist, about 6 feet above the ground.

Blasting.—Blasting accidents are described in the report by the Inspector of Explosives.

The other accidents do not call for special reference.

GENERAL REMARKS.

Sending Natives in and out of the Mines.—White men have always been sent in and out of the mines, and I am glad to say natives have now the same privilege. At Kimberley Mine they have been sent to and from the 1,000 feet level, through the rock shaft, since August, 1892. At De Beers they were sent up through No. 2 incline shaft for the first four months of 1893, during which they had to climb down the ladders. After that they were sent down and up through No. 2 shaft, until 29th November, when No. 1 shaft was completed to the 800 feet level, and has since been used for sending all the men in and out of the mine.

I have constantly urged the importance of doing away with ladder-climbing as far as possible. The liability to accidents from this cause is most strikingly shown by the two serious accidents in De Beers No. 2 shaft already described. And the carefully kept register in the Compound Hospitals shows most distinctly that the number of sufferers from pneumonia, and of deaths therefrom, has been considerably less since the natives have been sent in and out of the mines.

Ambulance Classes.—I am glad to say that ambulance classes have been started at Kimberley and De Beers Mines. The need for such instruction as is imparted at these classes was strikingly exemplified by the accident to a native at the 880 feet level at De Beers on the 13th May. Whilst he was drilling, a piece of the blue ground fell, breaking both his legs below the knee, and he was so weakened by loss of blood that he succumbed to the effects of amputation, which was performed as soon as he was brought to surface. There were no other injuries, and the doctor stated that if the bleeding had been stopped soon after the accident, as it could easily have been, his life would have been saved. The contractor said he did not know what to do, whereas if he had received a little elementary training in ambulance work he could have improvised a tourniquet on the spot, and stopped the flow of blood. I wrote the General Manager of De Beers on the 15th May, calling his attention to this accident, and asking him to take steps for the formation of ambulance classes at the mines. He at once replied that he would give the matter his earnest attention, and, thanks to his having done so, classes were subsequently formed at both mines. On at least two occasions at Kimberley Mine the usefulness of the teaching imparted at these classes has been fully proved.

I might add that on 5th January of the current year a public meeting was held in the Town Hall, under the auspices of the Cape Town centre of the St. John Ambulance Association, when the hon. secretary delivered a very interesting lecture on the subject of "St. John Ambulance Society and its work." The meeting was presided over by the General Manager of De Beers, and was very largely attended. At the close an influential committee was formed to further the objects of the association.

Hours of Labour in the Mines.—I stated in my last year's report that the eight hours' shift had been adopted by the De Beers Company, and the following extract from the General Manager's last Annual Report will show that it answers very well:—

"The usual shifts in the mines were of twelve hours' duration, which meant at least thirteen hours from the time the men left their homes until they returned again.

"Having gone thoroughly into the question, and taking into consideration that the air in the mines was in many places hot and impure, consequent upon the use of large quantities of dynamite, and bearing in mind the fact that most of the work in the mines was done by contract, and that the contractors were anxious to have shorter hours, promising on their part that the output of blue ground should be increased, and that the cost per load should

not be greater than under the twelve hours system, it was arranged that three shifts of eight hours each should be substituted for two of twelve hours.

"The result of the past few months' working of the mines has shown that the output has been materially increased, and at no greater cost per load than under the old system."

Colonial Coal.—It will be seen by the following extract from the General Manager's report that Colonial coal is now largely used by De Beers Company:—"We have given up the use of English coal, which formerly cost us from £8 to £8 15s. per ton of 2,000 lbs., and are now using Colonial coal and wood. The coal comes from the Stormberg Mountains, and the wood, for the most part, from Bechuanaland."

Rainfall.—The rainfall at Kimberley in 1893 was 15·371 inches in 80 days. In 1892 it was 12·951 inches in 70 days, and in 1891 it was 26·337 inches in 93 days.

Plans and Sections.—The plans and sections appended to this report have been kindly supplied by the General Manager of De Beers Consolidated Mines.

Return of Machinery.—I annex a return of machinery at the various mines as at the end of 1893.

THOS. QUENTRALL,
Inspector of Mines.

Inspector of Mines' Office,
Kimberley, February, 1894.

RETURN of Machinery at the various Mines at the end of 1893.

	Kimberley Mine.	De Beers Mine.	Du Toit's Pan Mine.	Bultfontein Mine.	Otto's Kopje Mine.	St. Augustine's Mine.	Grand Totals.
Winding Engines :							
Number	4	7	4	5	1	2	23
Indicated Horse-Power	925	890	...	...	...	...	...
Nominal Horse-Power	...	...	88	80	10	38	...
Washing Engines :							
Number	4	8	2	4	1	1	20
Indicated Horse-Power	450	635	...	...	...	...	...
Nominal Horse-Power	...	...	24	88	10	16	...
Pumping Engines :							
Number	1	2	2	3	...	1	9
Indicated Horse-power	95	68	...	...	...	...	...
Nominal Horse-Power	...	...	12	26	...	40	...
Locomotive and other Engines :							
Number	13	12	2	5	...	...	32
Indicated Horse-Power	550	607	...	...	...	...	...
Nominal Horse-Power	...	...	20	72	...	...	...
Total Engines at each Mine	22	29	10	17	2	4	84

ANNEXURE I TO REPORT.

Inspector of Mines' Office,
Kimberley,

14th February, 1894.

Subjoined I have the honour to submit to you a report showing the number of persons killed and injured in the different mines by the use of explosives during the year ending the 31st December, 1893:—

KIMBERLEY MINE.

European: One killed, three injured. Coloured: Four killed, four injured.

Of these, one European and one coloured were killed and two Europeans injured through inhaling dynamite fumes when blasting in the large pass, the ground in which had become jammed so much so that it had been impossible to get the ground to move during fourteen hours. In order to cause a movement a large amount of blasting had been done and the Europeans in their anxiety evidently overlooked the danger of the large amount of fumes remaining in the spot where the blasting had taken place.

One European was injured whilst firing one of the boilers on the surface by an explosion in the fire-box, caused probably by a detonator being accidentally sent amongst the coals from the coal mine.

One coloured was killed through drilling into an unexploded hole and the two miners in charge were committed for trial for culpable homicide, the jury acquitting them.

One coloured was killed during blasting, and the resident magistrate at the inquest censured the miner in charge for not exercising greater caution during blasting.

The others were pure accidents.

DE BEERS MINE.

Europeans: Two injured.
These were pure accidents.

BULTFONTEIN MINE.

Coloured: Four killed.

One of these was poisoned through using an explosive (Roburite) to sweeten his mealie meal pap instead of sugar.

One was killed through coming into the open workings during the time blasting was proceeding and the blaster was censured by the resident magistrate at the inquest and afterwards discharged from his employment by the General Manager of the North Eastern Bultfontein Company, for not taking precautions to prevent natives entering the mine during blasting.

The others were pure accidents.

SAINT AUGUSTINE'S MINE.

Nil.

OTTO'S KOPJE MINE.

Nil.

DU TOIT'S PAN MINE.

Nil

To Captain T. Quentrall,
Inspector of Mines.

II.—REPORT OF INSPECTOR OF CLAIMS, BARKLY WEST, FOR THE YEAR 1893.

The report for the year 1893 will necessarily be short, and the Annexures put in, but two, namely, Recapitulation of Mines and Diggings in the Barkly division, including the proclaimed alluvial diggings in the Kimberley division, and Return giving detailed statement of Revenue received during the year.

REVENUE FOR 1893

The Revenue for the year 1893 (including Revenue received from the alluvial diggings in the Kimberley division) amounts to £7,045 7s., being an increase over that of the preceding year of £525 13s., and is made up as follows:—

Diggers' Licences	...	...	£5,948	10	0
Miners' Certificates	...	...	1,079	15	0
Protection Certificates	...	...	1	13	0
Sale of Claims	...	...	15	9	0
			<hr/>		
			£7,045	7	0

The approximate weight and value of diamonds imported into Kimberley from the proclaimed diggings of Barkly West (inclusive of the diamonds found in the proclaimed alluvial diggings of the Kimberley division during the year 1893, data kindly supplied by the Detective Department,) are 80,531 $\frac{1}{8}$ carats, valued at £194,394 11s. 6d., to which add (information also from the Detective Department) 5,198 $\frac{7}{8}$ carats, value at £12,549, from unproclaimed diggings on riparian farms in the Kimberley division.

NEW DIGGINGS PROCLAIMED.

One new alluvial digging has been proclaimed during the year 1893, the *Ward Hope*, a shallow alluvial situate on Farm H VII and adjoining the proclaimed diggings of Hebron; very little work has been done at *Ward Hope* since proclamation, the diggers preferring the better known diggings of Klipdam, Holpan and surroundings.

GONG GONG DEEP ALLUVIAL.

The Vaal River Diamond Company have abandoned all claims in this diggings save six, and no work has been carried on since last report.

LEASES.

Wrigley's Mine.—In this mine work was recommenced some few months ago, but temporarily stopped towards the end of the year; the difficulty that caused the stoppage having been overcome, work will doubtless be at once recommenced.

BORRELL'S PROSPECT MINE.

The leases in this mine (expiring by effluxion of time) have not been renewed.

NEWLANDS I AND II.

I am informed that the original lessees have transferred their holdings in these mines to a Company, which has for its object the practical development of the properties on a large scale, and negotiations are now proceeding for acquiring the necessary machinery; meanwhile an iron building, 20 by 12, has lately been erected, and work will, I trust (and at an early date), be resumed.

WASHINGTON MINE.

An abandoned mine.

APPROXIMATE NUMBER OF DIGGERS.

The approximate number of diggers at work on the various alluvial diggings is about the same as last year.

[G. 38—'94.]

LABOUR.

Labour, towards the close of the year, became very scarce, owing probably to the late abnormal rains. Many of the natives returned to their locations in order to cultivate their lands.

PROSPECTS.

There is nothing calling for peculiar remark on the various prospects still being worked in this division.

W. FRANKLIN,

Inspector of Claims.

Inspector of Claims' Office, Barkly West,

February 1894.

(ANNEXURE I TO REPORT II.)

RETURN showing the Amount of Revenue received from Mines and Alluvial Diggings during the year 1893.

Name of Digging or Mine.	Amount of Licences.	Amount of Miners' Certificates.	Total.
	£ s. d.	£ s. d.	£ s. d.
Spence's Kopje	0 10 0	...	0 10 0
Liversides	1 10 0	1 0 0	2 10 0
Wedburg	117 10 0	16 5 0	133 15 0
Robinson's Kopje	406 0 0	60 5 0	466 5 0
Webster's Kopje	17 0 0	3 5 0	20 5 0
Cawood's Hope	0 10 0	...	0 10 0
Waldeck's Plant	218 10 0	35 0 0	253 10 0
Keiskanna South	179 10 0	36 0 0	215 10 0
Niekerk's Rush	119 0 0	20 15 0	139 15 0
Brady's Prospect	35 0 0	14 0 0	49 0 0
Jonas Kopje	11 10 0	2 0 0	13 10 0
Ward Hope	3 10 0	1 10 0	5 0 0
Hebron	745 0 0	155 5 0	900 5 0
Klipdam	1,650 10 0	344 5 0	1,994 15 0
Holpan No. 1	39 0 0	} 190 10 0	1,247 5 0
Do. No. 2	16 10 0		
Do. No. 3	1,001 5 0		
Van Zoelen's	164 10 0	20 5 0	184 15 0
Jacob's Prospect	53 0 0	11 10 0	64 10 0
Scholtz Prospect	122 5 0	24 10 0	146 15 0
Snyder's Rush	71 5 0	8 5 0	79 10 0
Klip Drift	94 0 0	22 5 0	116 5 0
Good Hope	42 10 0	6 10 0	49 0 0
Bad Hope	3 0 0	...	3 0 0
Gong Gong	397 10 0	} 19 0 0	417 15 0
Central Gong Gong...	1 5 0		
Union Kopje	8 10 0		
Keiskanna North	32 0 0	5 0 0	37 0 0
Forlorn Hope .....	...	...	...
Longland's Rush	188 10 0	35 0 0	223 10 0
Winter's Rush	119 10 0	17 15 0	137 5 0
Delpport's Hope	88 10 0	28 10 0	117 0 0
	5,948 10 0	1,079 15 0	7,028 5 0
Protection Certificates	...	...	1 13 0
Sale of Claims	...	...	15 9 0
		Total	£7,045 7 0

W. FRANKLIN,
Inspector of Claims.

Inspector and Registrar of
Claims Office, Barkly West, February 1st, 1894.

BARKLY WEST—(ANNEXURE II. TO REPORT II.)

CLASS I.—Mines and Diggings on Crown Lands.

MINE OR DIGGING.	Claim Licences.		Deposit Sites.		When, and under what Proclamation proclaimed.	When, and under what Proclamation abandoned.	When Leased and by whom.
	Government.	Government.	Government.	Government.			
Barrell's Prospect Mine ..	Whole	Whole	Whole	Whole	Proc. 166 of 30.10.83	Proc. 259 of 28.11.84	2 morgen on 26.9.87 to Carl Droste 2 " 26.9.87 to T. A. Higson 1 " 28.3.88 to E. M. Lit- kie and E. W. Heckrath
Welsh's Prospect ..	"	"	No Deposit Sites	"	23 of 27.1.87	Still open	
Hebron (a) ..	"	"	do	"	34 of 28.11.71	"	
Klipdrift (b) ..	"	"	do	"	39 of 10.1.72	"	
Farlorn Hope ..	"	"	do	"	34 of 28.11.71	"	
Leglands Rush (c) ..	"	"	do	"	35 of 8.12.71	"	
Esterhuizen's Rush ..	"	"	do	"	34 of 28.11.71	"	
Winter's Rush ..	"	"	do	"	34 of 28.11.71	"	
Delpport's Hope ..	"	"	do	"	34 of 28.11.71	"	
Washington Mine ..	"	"	Whole	Whole	27 of 13.2.89	Proc. 226 of 17.8.91	
Russell Mine ..	"	"	"	"	57 of 10.3.90	292 of 21.10.91	
Jonas Kopje ..	"	"	No Deposit Sites	"	131 of 1885	Still open	

REMARKS—

- (a) Extended to all Alluvial Deposits on the Hebron Commonage by Proclamation 237 of 1887.
- (b) Klipdrift, as per Proclamation 39 of 10.1.72, extends on North Bank of Vaal River from Upper Klipdrift to Good Hope.
- (c) Proclamation 35 of 8.12.71 also proclaims area between Winter's Rush and Delpport's Hope, one mile north of Vaal River, as Public Digging.

BARKLY WEST—(ANNEXURE II TO REPORT II)—Continued.

CLASS II.—Mines and Diggings on Property with reservation of Minerals, &c., to Crown.									
MINE OR DIGGING.	Claim Licences.		Deposit Sites.		When, and under what Proclamation proclaimed.	Proc.	When, and under what Proclamation abandoned.	When Leased and by whom.	
	Government.	Proprietor.	Government.	Proprietor.					
Victoria Mine ..	Whole	Nil	Nil	Whole	Proc. 172 of 13.10.81	Proc.	4 of 4.1.84	1 morgen on 26.9.87 to Martin Broderick, 2 morgen on 26.9.87 to Carl Droste, remainder on 5.3.88 to George Kilgour	
Newlands No. I. Mine (a) ..	"	"	"	"	" 191 of 17.11.81	"	19 of 24.1.84	1 morgen on 12.5.84 to George Paton, 2 morgen on 13.2.88 to James Murray	
Newlands No. II. Mine ..	"	"	"	"	" 58 of 6.4.82	"	37 of 25.2.89	1 morgen on 14.3.89 to G. A. M. Tapscott	
Wigley's Mine ..	Half	Half	"	"	" 55 of 12.4.83	"	248 of 23.10.84	2 morgen on 28.7.87 to Martin Broderick, 1 morgen on 14.11.87 to Martin Broderick	
Good Hope ..	?	?	No Deposit Sites		" 34 of 28.11.71		Still open		
Bad Hope ..	?	?	do		" 34 of 28.11.71		"		
Gong Gong (b) ..	Half	Half	do		" 34 of 28.11.71		"		
Central Gong Gong ..	"	"	do		" 297 of 3.12.90		"		
Union Kop (c) ..	"	"	do		" 34 of 28.11.71		"		
Kaskanna North (d) ..	"	"	do		" 34 of 28.11.71		"		
Jacob's Prospect (e) ..	"	"	do		" 54 of 1886		"		
Helpan No. I. ..	"	"	do		" 8 of 5.5.88		"		
Helpan No. II. ..	"	"	do		" 182 of 13.8.90		"		
Helpan No. III. ..	"	"	do		" 356 of 1.11.92		"		
Klipdam ..	"	"	do		" 194 of 1888		"		
Van Zoelen's Laagte ..	"	"	do		" 193 of 1888		"		
Snyder's Rush ..	"	"	do		" 303 of 2.11.91		"		
Scholtz's Prospect ..	"	"	do		" 206 of 5.7.92		"		
Ward Hope ..	"	"	do		" 24 of 18.1.93		"		
Brady's Prospect ..	"	"	do		" 162 of 1892		"		

REMARKS—(a) The two morgen leased to J. Murray since cancelled.
 (b) Old Gong Gong further extended by Proclamation 228 of 1887.
 (c) Only that portion open on Union Kopje Farm.
 (d) Further extended by Proclamation 59 of 1887.
 (e) Further extended under authority of Letter B/198 of 24.6.86.

BARKLY WEST—(ANNEXURE II TO REPORT II)—Continued.

CLASS III.—Mines and Diggings on Property on which there is no reservation of Minerals, &c., to Crown.

MINE OR DIGGING.	Claim Licences.		Deposit Sites.		When, and under what Proclamation proclaimed.	When, and under what Proclamation abandoned.	When Leased and by whom.
	Government.	Proprietor.	Government.	Proprietor.			
P'niel	Half	Half	No Deposit Sites		Proc. 33 of 28.11.71	Proc. 243 of 1887	On 27.1.88 to Wm. Henry Stone
Webster's Kopje	"	"	do		33 of 28.11.71	Still open	
Cawood's Hope	"	"	do		33 of 28.11.71	"	
Waldeck's Plant. (including Kieskanna South) (a)	"	"	do		53 of 4.9.72	"	
Blue Jacket or Niekerk's Rush (b)	"	"	do		33 of 28.11.71	"	

REMARKS—(a) Keiskanna South is merely an extension of Waldeck's Plant, and so called for convenience.

(b) Defined by Proclamation 195 of 29.6.82.

CLASS IV.—Alluvial Diggings in Kimberley Division proclaimed with consent of Proprietor.

MINE OR DIGGING.	Claim Licences.		Deposit Sites.		When, and under what Proclamation proclaimed.	When, and under what Proclamation abandoned.	When Leased and by whom.
	Government.	Proprietor.	Government.	Proprietor.			
Spence's Kopje	Half	Half	No Deposit Sites		Proc. 129 of 1886	Still open	
Liverside's	"	"	do		129 of 1886	"	
Wedburg or Robinsons No. II. (a)	"	"	do		129 of 1886	"	
Robinson's Kopje No. I.	"	"	do		89 of 1887	"	

REMARKS—(a) Wedburg further extended by Proclamation 51 of 1887.

Inspector of Claims Office,
Barkly West, February, 1894.

W. FRANKLIN,
Inspector of Claims.

III. REPORT OF THE INSPECTOR OF MINES, MILLWOOD, ON THE KNYSNA GOLD FIELDS, FOR THE YEAR 1893.

The mining operations on the Knysna proclaimed fields during the year ended 31st December, 1893, were, like the previous year, confined to alluvial workings. With the view of future reference, the localities, however insignificant their yield, are noted in the following monthly registration of gold.

	Outshoorn Creek.	Millwood Gully.	Jubilee Creek.	Forest Creek.	N. Zealand Creek.	Red River.	Homtini River.	TOTALS.
1893.	oz.dts. grs	oz.dts. grs	oz.dts. grs	oz.dts. grs	oz.dts. grs	oz.dts. grs	oz.dts. grs	oz.dts. gr
January	0 9 4	0 10 0	20 2 8	0 19 13	..	3 14 0	0 7 10	26 2 11
February	..	1 19 0	14 17 20	5 14 14	1 9 0	4 18 19	1 0 2	29 19 7
March	..	1 15 12	5 1 11	4 3 5	1 19 0	4 12 21	..	17 12 1
April	0 16 21	4 1 0	10 3 12	0 17 12	1 19 0	3 11 11	..	21 9 8
May	2 13 0	4 6 2	8 18 0	1 19 20	1 15 0	2 12 14	..	22 4 12
June	3 1 22	..	6 15 3	1 6 22	2 15 0	2 17 22	..	16 16 21
July	5 6 15	0 14 5	6 2 11	0 3 12	1 16 0	4 19 21	..	17 2 16
August	9 0 12	..	6 7 15	..	1 6 0	5 6 16	..	22 0 19
September	6 7 2	2 16 2	6 6 9	..	0 16 0	2 13 7	..	18 18 20
October	5 15 8	2 14 5	8 0 14	0 9 4	1 0 0	2 0 17	..	20 0 0
November	2 17 14	1 6 5	6 13 14	0 13 20	0 17 0	2 5 6	1 11 21	16 5 8
December	3 16 23	2 1 15	4 12 7	0 9 12	1 6 0	3 8 0	..	15 14 9
	38 5 1	22 3 22	104 1 4	16 17 1 ⁴	16 18 0	43 1 10	2 19 9	244 6 12

This gives a total yield for the fields last year of 244 ounces, representing the value of £945, and is about one half of the yield of the previous year, which was 442 ounces.

The total production of the fields from commencement in 1887 to the close of last year was 2,844 ounces, valued at £11,020 (eleven thousand and twenty), the total revenue derived from them, exclusive of hotel and shop licences being £14,663 10s. (fourteen thousand six hundred and sixty-three).

Reef Mining.—Although there was no reef mining of any description carried on during the year, there were 59 claims along the Petersen reef east of the Knysna River, held in possession by a syndicate, with the sanction of Government, pending negotiations for making a test trial; the valuable machinery in position at the mine is kept in the best of order ready to be put in motion at a few hours' notice, but, probably, owing to the great attraction in mining elsewhere, the prospect of the syndicate succeeding in their praiseworthy aim appears at present somewhat doubtful.

Claims registered.—In December last there were 63 reef, and 19 alluvial claims on the registration, and 34 prospecting permits, free, for prospecting within the proclaimed areas were issued in accordance with Act No. 10 of 1888.

Population.—The previous year, 1892, the population of Millwood was 162. In last December it numbered only 43 whites, and 31 coloured, or a total of 74.

Township.—Twenty-seven stands were in possession on the 31st December, and at the survey of the Forest demarkation, a commonage of about 300 morgen was left out in case it might be required for the use of a township or settlement at some future time.

General.—Having regard to the above particulars, it is evident the office of Inspector of Mines is not required for the Knysna gold fields, and that an office of much less pretension will meet the requirements of the place.

It is difficult to say what is the best course to pursue in connection with the future of Millwood, that there will be a discovery of importance made at

some future time I have no doubt whatever; and with this in view it would appear desirable that a permanency of occupation be established. One suggestion has been made, which, if carried out would in all probability prove a success. I refer to a proposal to lay off allotments in connection with stands and commonage referred to, and draft to them some of the Italians who have already shown themselves so suitable to this district. The matter of soil and water supply at Millwood will bear a comparison with any other in these parts, and the section of road across the Knysna River, to which I have annually alluded, completed, a settlement at Millwood on the lines indicated would have a fair chance of prospering, more so, I believe, than any hitherto attempted in the Knysna.

P. FLETCHER,

Inspector of Mines.

ANNEXURE I TO REPORT III.—Statement of Revenue Received during the Year ended 31st December, 1893.

1893.	Reef Licences, Government.	Alluvial Licences Government.	Reef Licences, Lots M and N.	Alluvial Licences, Lots M and N.	Stand Licences.	Transfer of Claims.	Transfer of Stands.	TOTAL.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.		£ s. d.
January ...	7 5 0	3 0 0	...	...	4 15 0	4 12 6	...	19 12 6
February ...	7 7 6	2 5 0	...	0 5 0	6 5 0	0 2 6	...	16 5 0
March ...	9 15 0	3 17 6	...	...	3 10 0	...	...	17 2 6
April ...	7 7 6	1 10 0	...	...	8 17 6	...	...	17 15 0
May ...	8 17 6	4 2 6	1 10 0	0 5 0	3 15 0	...	...	18 10 0
June ...	7 17 6	1 12 6	...	0 5 0	4 5 0	...	...	14 0 0
July ...	8 7 6	2 12 6	...	...	3 17 6	...	...	14 17 6
August ...	7 7 6	2 15 0	...	2 0 0	3 7 6	...	...	15 10 0
September ...	7 7 6	1 2 6	...	0 5 0	4 10 0	...	...	13 5 0
October ...	9 7 6	2 0 0	...	0 5 0	2 7 6	...	...	14 0 0
November ...	7 7 6	2 0 0	...	...	5 7 6	...	...	14 15 0
December ...	7 7 6	3 0 0	...	1 0 0	5 10 0	...	...	16 17 6
	95 15 0	29 17 6	1 10 0	4 5 0	56 7 6	4 15 0	...	192 10 0
						Add judicial fines		4 5 0
Total ...	...	...	...	...	...	...	...	£196 15 0

P. FLETCHER, Registrar of Mines.

ANNEXURE II. TO REPORT III.—(Judicial) number of cases tried by the Special J. P. at Millwood during the twelve months ended 31st December, 1893 :—

Assaults	...	...	...	8
Drunkenness	...	...	...	4
Assault, Circuit Court Case	...	...	...	1
Total	...	...	...	13

ANNEXURE III. TO REPORT.—Rainfall Return for Millwood, about 14 miles from the coast, and 1,500 feet above sea level, for the year ended 31st December, 1893 :—

January	...	...	4.48	distributed over 13 days.
February	...	...	3.62	.. 11 „
March	...	...	4.01	.. 18 „
April	...	...	1.42	.. 7 „
May	...	...	4.42	.. 6 „
June	...	..	0.34	.. 4 „
July	...	...	1.33	.. 5 „
August	...	...	.99	.. 6 „
September	...	...	4.76	.. 12 „
October	...	...	5.59	.. 16 „
November	...	...	7.51	.. 16 „
December	...	...	5.52	.. 15 „
Total	...	...	43.99 inches.	129 days.

Rainfall at Millwood during a period of 6 years :—

	1888.	1889.	1890.	1891.	1892.	1893.	Average.
Rainfall ..	42.62	35.96	37.70	50.39	46.28	43.99	42.82 inches.
Rainy Days	130	114	115	126	128	129	123.6 days.

IV.—REPORT OF THE MANAGER OF THE VOORUITZUGT ESTATE FOR THE YEAR 1893.

I have the honour to present for the information of the Honourable the Secretary for Agriculture, the Annual Report upon the Vooruitzugt Estate for the year 1893. The total receipts for that year amount to £3,881 7s. 1d. sterling as against £5,250 11s. 9d. received during the previous year (1892), showing a decrease of £1,369 4s. 8d. for the year under review.

This is principally to be attributed to the two following causes :—(a) The depreciation in the value of landed property together with the consequently small number of stands sold to the tenantry of the estate, who have been able to purchase stands from the Borough Council at a reduction of nearly 50 per cent. less than the average price realised by the Government in the year 1892. (b) The great decrease in stand rents, and the difficulty of re-letting properties which had once been abandoned. In other respects the revenue has been satisfactorily maintained.

The following is a detailed statement of Revenue and Expenditure for the year 1893.

REVENUE.			
Land Sales, Interest, &c.	£694	18	9
Stand Licences	679	4	5
Quitrent, Ordinary and Act 14 of 1878... ..	1,055	8	7
Lease-rent and Depositing Sites	894	3	8
Royalty on Diamonds	163	17	9
Municipal Rates refunded	123	14	9
Survey Expenses „	269	19	2
	£3,881	7	1
EXPENDITURE.			
Officers Salaries and Contingencies	£502	10	0
Municipal Rates	224	3	9
Survey Expenses..	45	12	0
	£772	5	9

Leaving a balance in favour of the Government of the sum of £3,109 1s. 4d. sterling.

Land Sales.—The decrease in receipts from this source of Revenue, of somewhat over £500, is, as already stated, to be attributed to the depreciation in the value of landed properties in this township. It might, however, be mentioned that the sale of Dawson's lease for the sum of £300 cash was a considerable supplement to the revenue under this head in the year 1892. Sixteen stands were sold by public auction under the provisions of Section V of Griqualand West Ordinance No. 7 of 1875, during the past twelve months, realizing an average price of £29 per stand.

Stand Licences.—The decrease in revenue accruing from Stand Licences amounting to £541 5s. 4d. is attributable to the following causes:—(a) The small number of stands now available for lease; (b) The large amount of arrears collected in 1892; (c) The grant of all stands, which have once been abandoned, to the Borough Council under Resolution of Parliament of August, 1893.

Quitrent Ordinary and Act 14 of 1878.—The receipts derived from Quitrent Ordinary and Act 14 of 1878 are £188 9s. 5d. less than for the preceding year, the decrease, however, is due to the large amount of long outstanding arrears collected in 1892.

Lease Rent.—The decrease under this head is attributable to a payment of rent in advance in 1892 for depositing sites outside the Mining Area, the lessees being desirous of making all lease rents payable to the end of each calendar year. The dates of payment have, however, since been adjusted in accordance with the conditions of each separate lease. Other leases of land reserved for mining purposes are now in course of preparation in favour of the De Beers Consolidated Mines, Limited, which will augment the receipts from this source of revenue in the current year.

Royalty on Diamonds.—It was anticipated that this item of revenue would disappear during the past twelve months, but the sum of £163 17s. 9d. has been collected, a slight increase over the receipts for 1892. The debris upon private stands must now however be almost exhausted, so that collections from their source cannot be reckoned of much importance for the future.

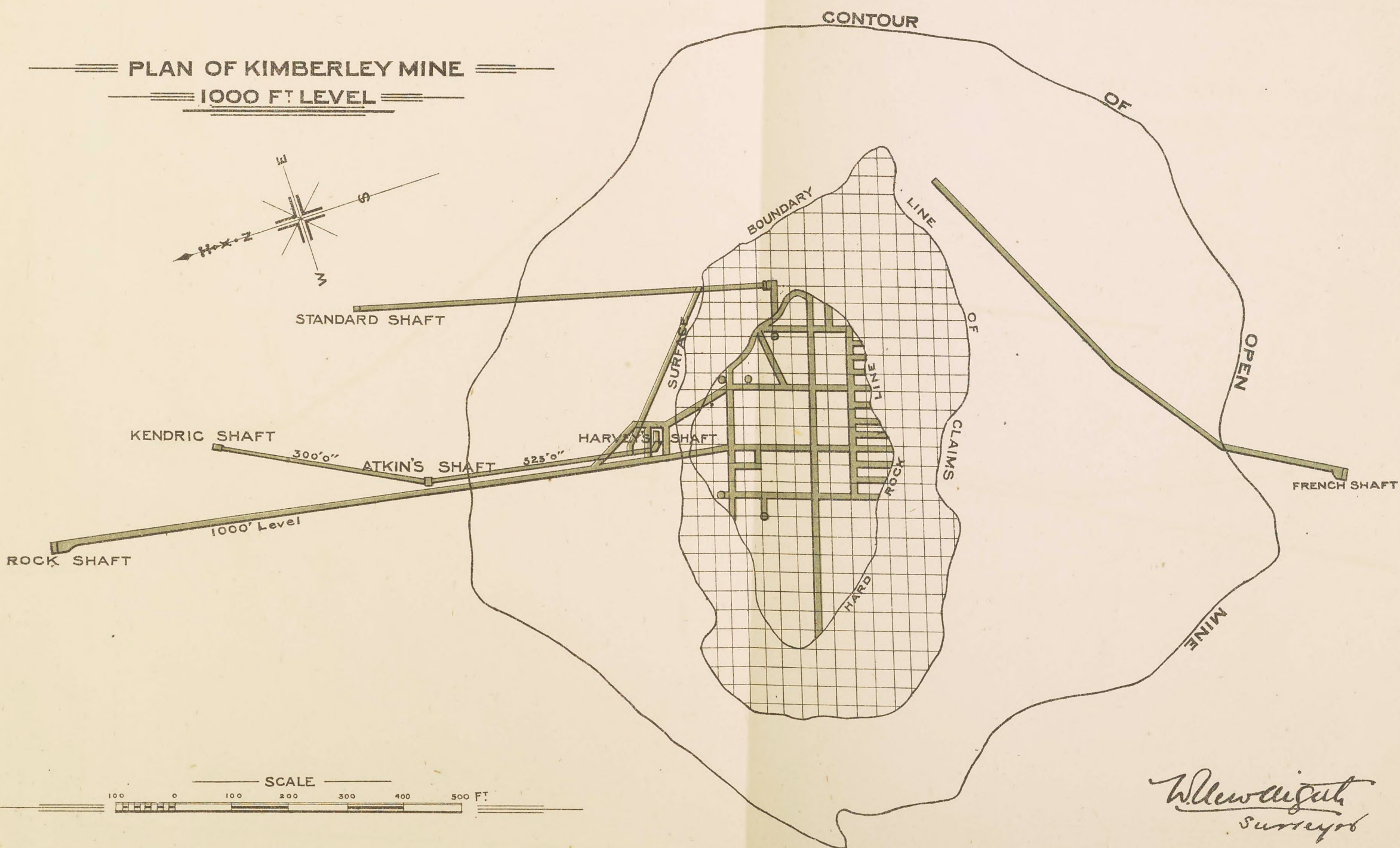
Municipal Rates.—The reimbursements under this head are some £15 less than for the year 1892, but it is hoped that the balance, no inconsiderable portion of which has been recovered, will be collected before the close of the current quarter.

Survey Expenses.—The reimbursements under the head of survey expenses amount to the sum of £269 19s 2d sterling, and the expenditure for the year to £45 12s. All expenses incurred in the survey of Borough Council grants, and town properties, are recoverable upon issue of title deed.

Officers' Salaries and Contingencies.—The expenditure under the head of officers' salaries and contingencies has been the same during the past four years, no officer having received any increase to his salary.

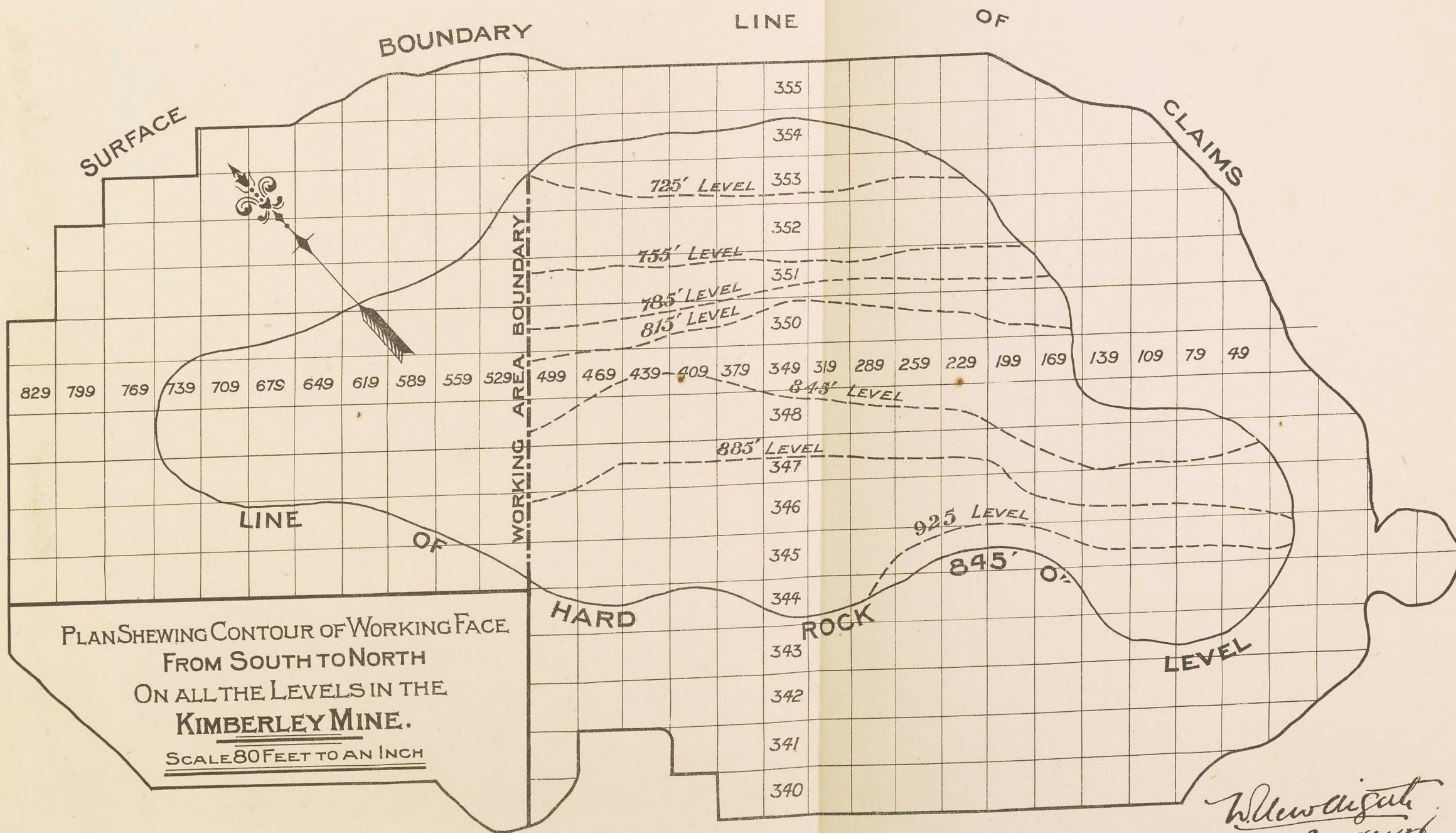
Grants of Land to the Borough Council.—Title to six grants of land in favour of the Borough Council, measuring about 470 morgen, including title to mining area No. 3, have been received during the past twelve months, and the only remaining pieces of ground to which the Borough Council has still to receive titles are, a small portion on the western side of the Transvaal Road, a piece of ground to the north of Graham Street West, and the abandoned stands granted under resolution of Parliament in August 1893.

E. A. JUDGE,
Civil Commissioner, Kimberley.



Survey Expenses.—The reimbursements under the head of survey expenses amount to the sum of £269 19s 2d sterling, and the expenditure for the year to £45 12s. All expenses incurred in the survey of Borough Council grants, and town properties, are recoverable upon issue of title deed.

Officers' Salaries and Contingencies.—The expenditure under this head is



Survey Expenses.—The reimbursements under the head of survey expenses amount to the sum of £269 19s 2d sterling, and the expenditure for the year to £45 12s. All expenses incurred in the survey of Borough Council grants, and town properties, are recoverable upon issue of title deeds.

PLATE 3—NOT PUBLISHED.

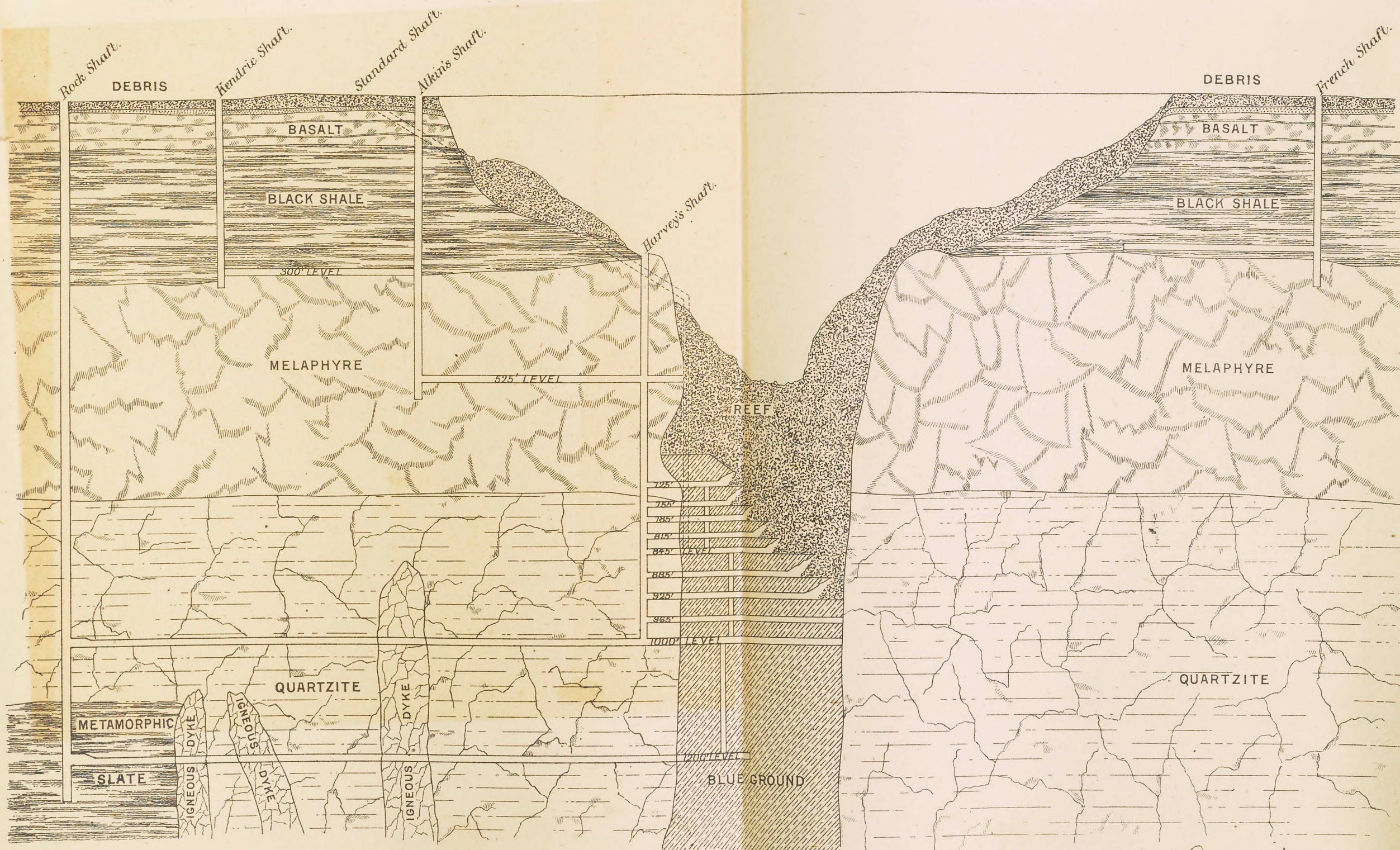
Survey Expenses.—The reimbursements under the head of survey expenses amount to the sum of £269 19s 2d sterling, and the expenditure for the year to £45 12s. All expenses incurred in the survey of Borough Council grants, and town properties, are recoverable upon issue of title deed.

SECTION OF KIMBERLEY MINE.

LOOKING EAST.

Scale.

100 0 100 200 300 400 500 Ft



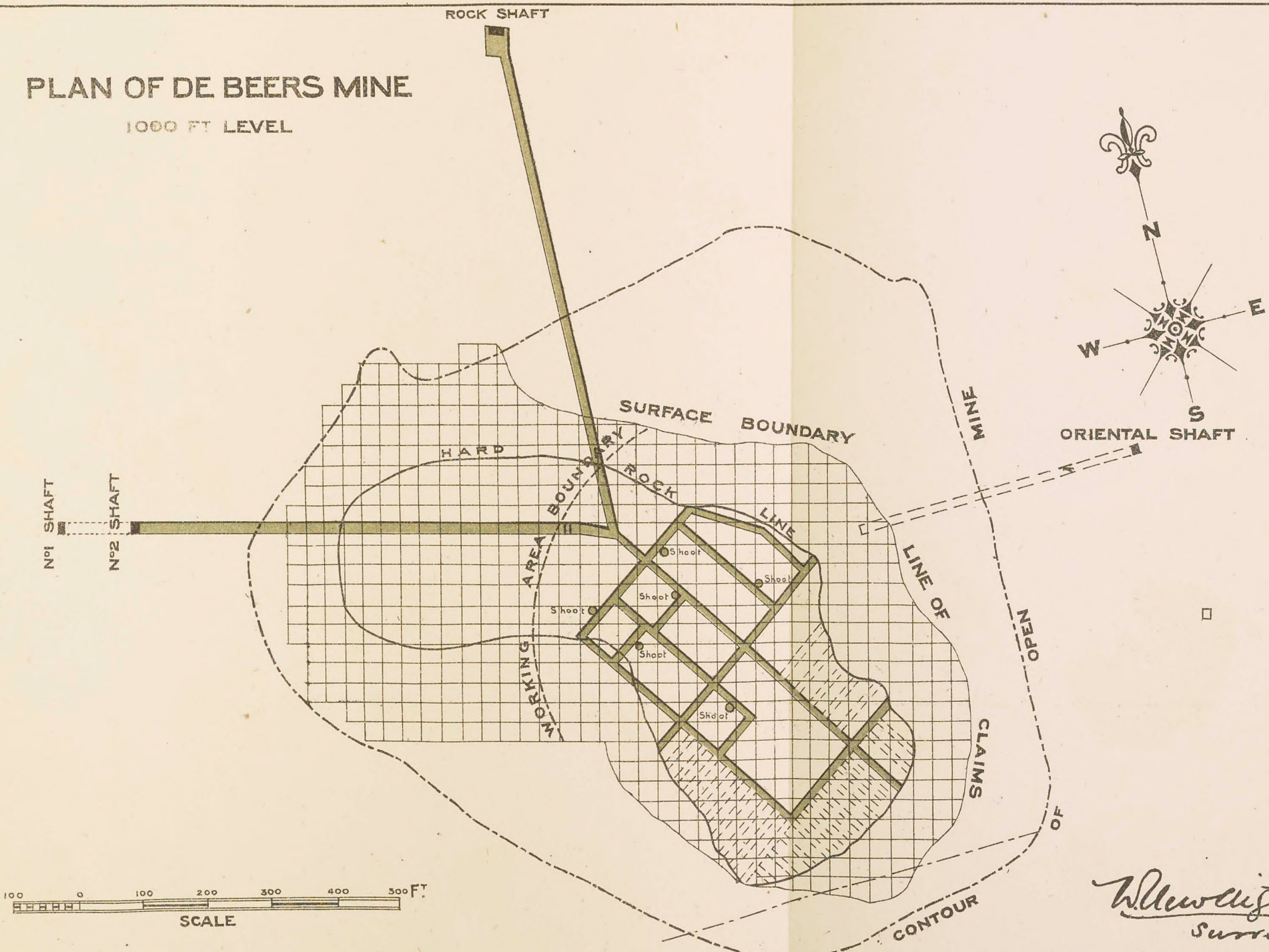
W. Lewis
Surveyor

SECTION OF THE

INTRODUCTION

PLAN OF DE BEERS MINE

1000 FT LEVEL



W. W. W. W.
Surveyor

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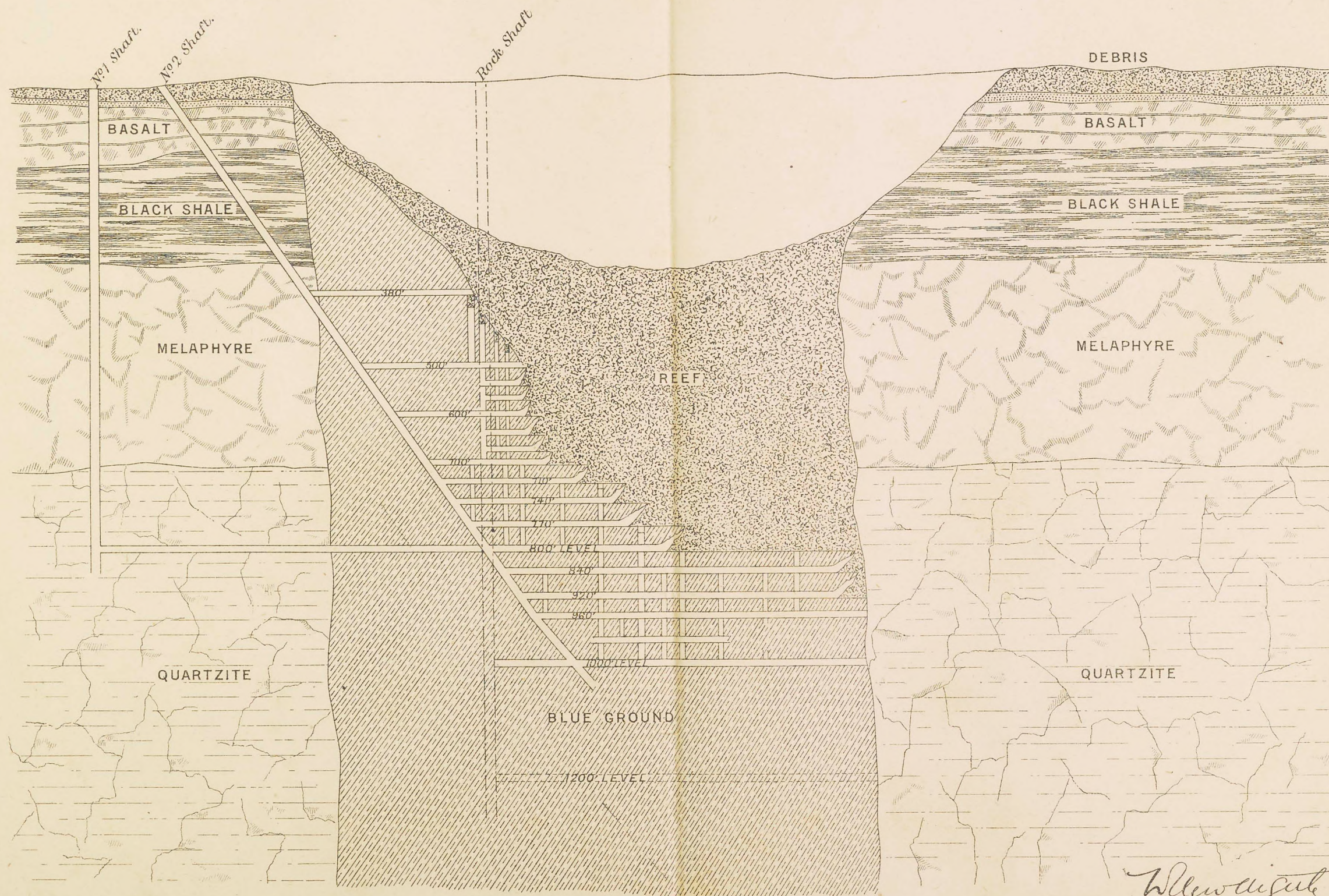
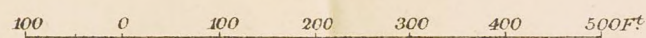
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SECTION OF DE BEERS MINE.

LOOKING NORTH

Scale.



W. Lewis
Surveyor

